

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-049945

(43)Date of publication of application : 15.02.2002

(51)Int.Cl.

G07B 15/00  
 B60R 11/02  
 G01C 21/00  
 G08G 1/0969  
 // G06F 17/60

(21)Application number : 2000-233340

(71)Applicant : TOKAI RIKA CO LTD

(22)Date of filing : 01.08.2000

(72)Inventor : MIZUI NOBUAKI

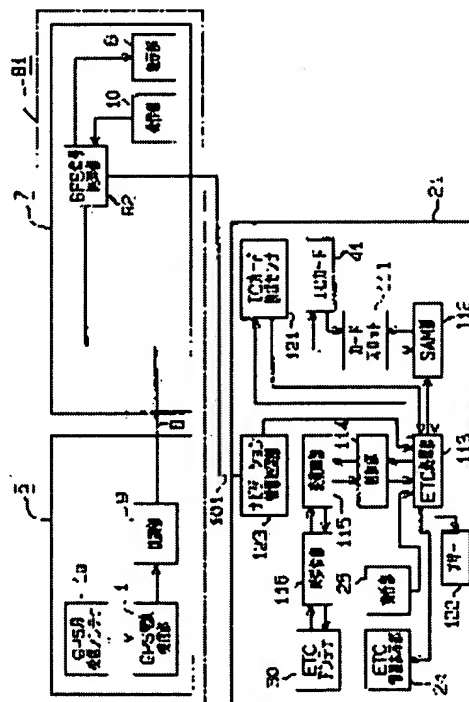
KUMAGAI KATSUhide

(54) ON-VEHICLE DEVICE FOR ETC

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an on-vehicle device for ETC(electronic toll collection) capable of eliminating troublesomeness that an announcing means operates as a result even in the case of not using a toll road.

SOLUTION: An ETC on-vehicle device mounting vehicle 11 mounts a navigation system 81 and an ETC on-vehicle device 21. The device 21 is provided with a card mounting part 64, an HMI part 23, an IC card detection sensor 121 and a buzzer 122. An IC card 41 is mounted to the part 64. The part 23 is provided with an ETC information display part 24 for displaying various kinds of information and an operation part 25. The sensor 121 detects mounting of the card 141. The buzzer 122 announces forgetting of inserting the card 41 when a route including the toll road is set.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of

BEST AVAILABLE COPY

rejection]

[Kind of final disposal of application other than  
the examiner's decision of rejection or  
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's  
decision of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office